

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P231166

Luminaire Tested: **ARCH-M-AF48-40-D-U-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231166
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-40-D-U-T3
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 240mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5551.6 lumens
Efficiency: N/A
Efficacy: 146.1 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 38
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

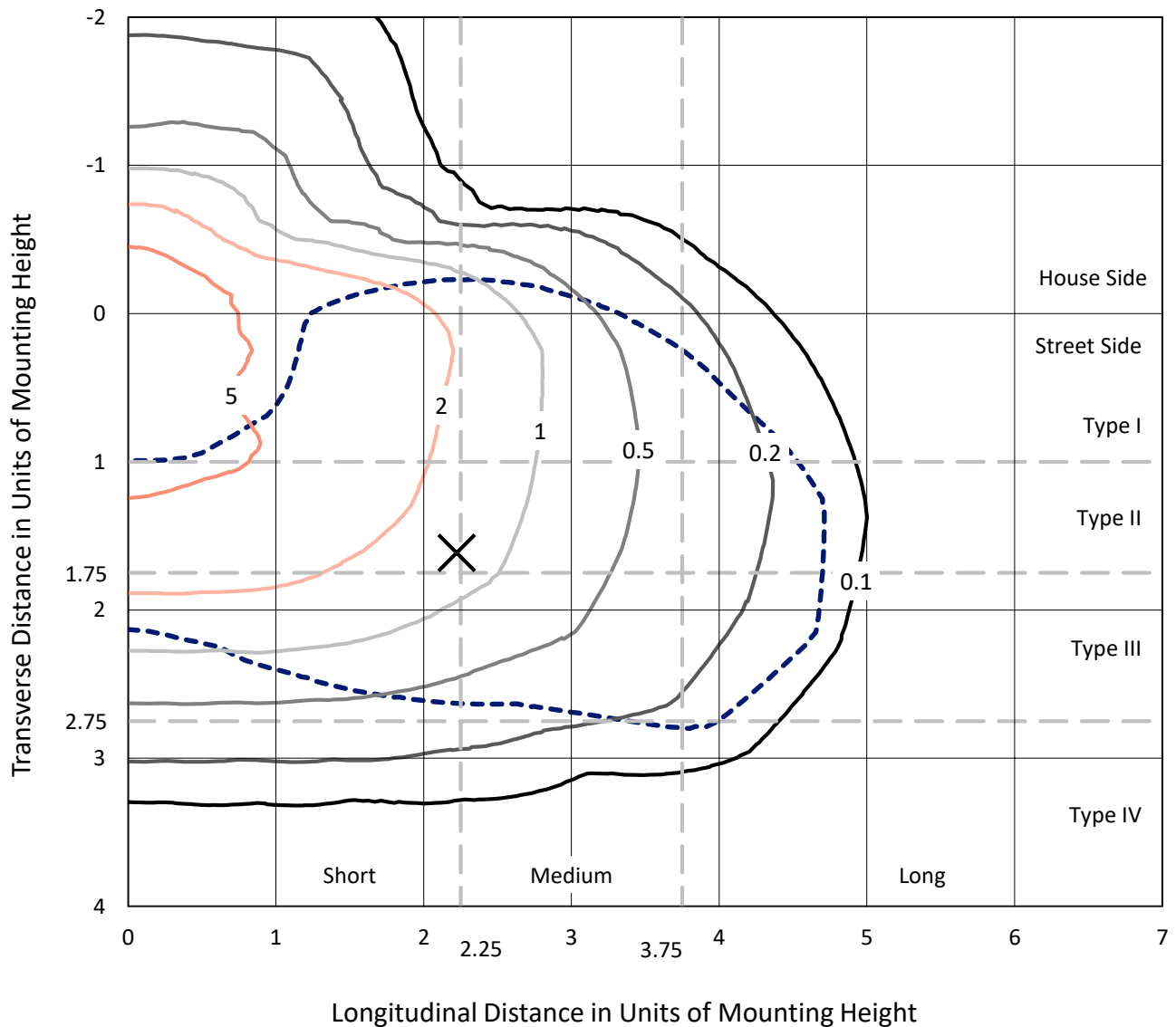


REPORT NUMBER: P231166

CATALOG NUMBER: ARCH-M-AF48-40-D-U-T3

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

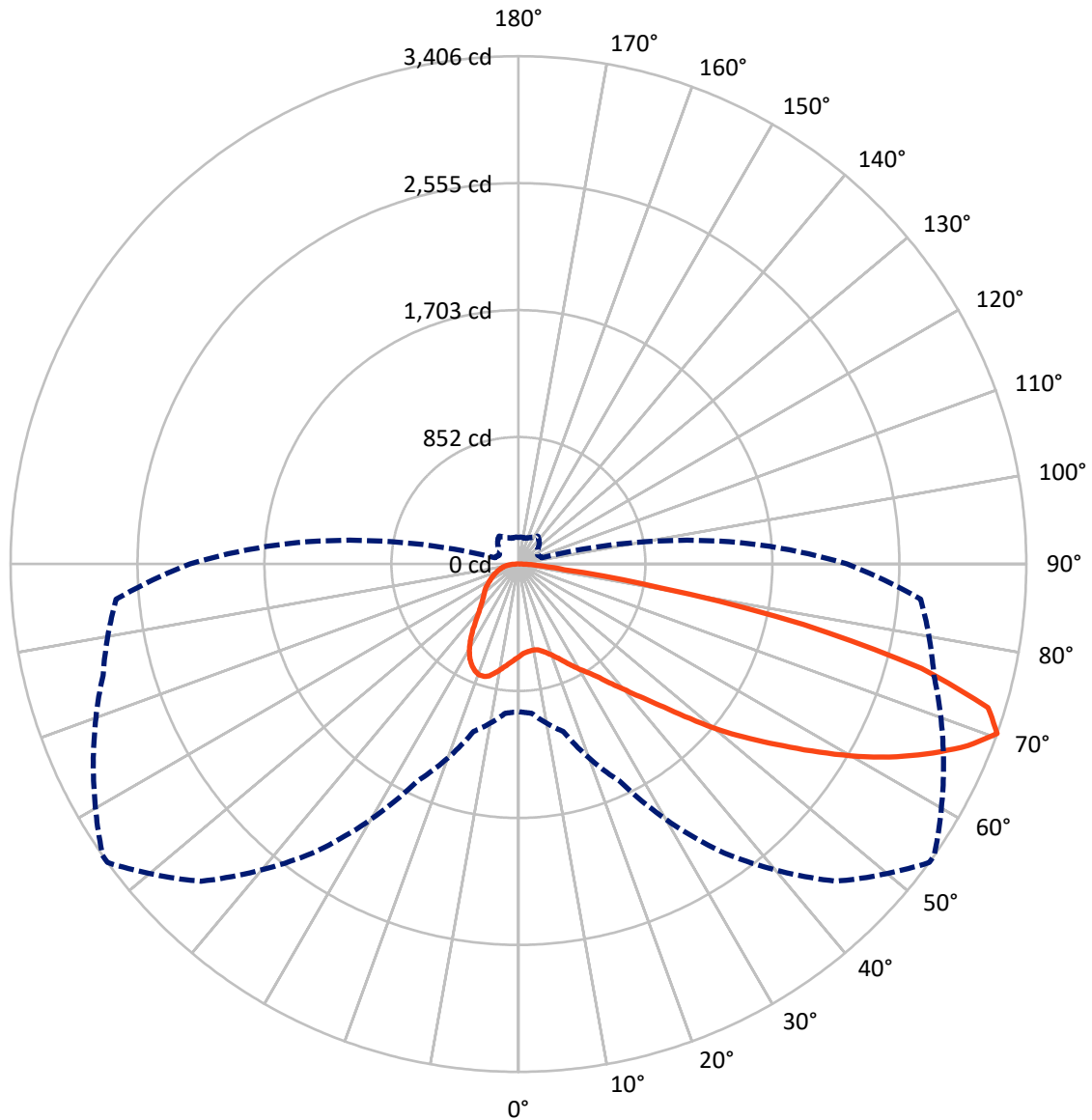


Based on 10 foot mounting height. Maximum calculated value = 7.2 fc
 Type III - Short - Non-Cutoff

REPORT NUMBER: P231166

CATALOG NUMBER: ARCH-M-AF48-40-D-U-T3

Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical



REPORT NUMBER: P231166

CATALOG NUMBER: ARCH-M-AF48-40-D-U-T3

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1259.1	0.0	1259.1
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	4292.5	0.0	4292.5
	% Fixture	77.3	0.0	77.3
Total	Lumens	5551.6	0.0	5551.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.0	1.1
10°-20°	194.8	3.5
20°-30°	338.4	6.1
30°-40°	494.5	8.9
40°-50°	776.1	14.0
50°-60°	1193.4	21.5
60°-70°	1458.1	26.3
70°-80°	904.0	16.3
80°-90°	131.3	2.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	5551.6	100.0
0°-180°	5551.6	100.0

Coefficient of Utilization



REPORT NUMBER: P231166

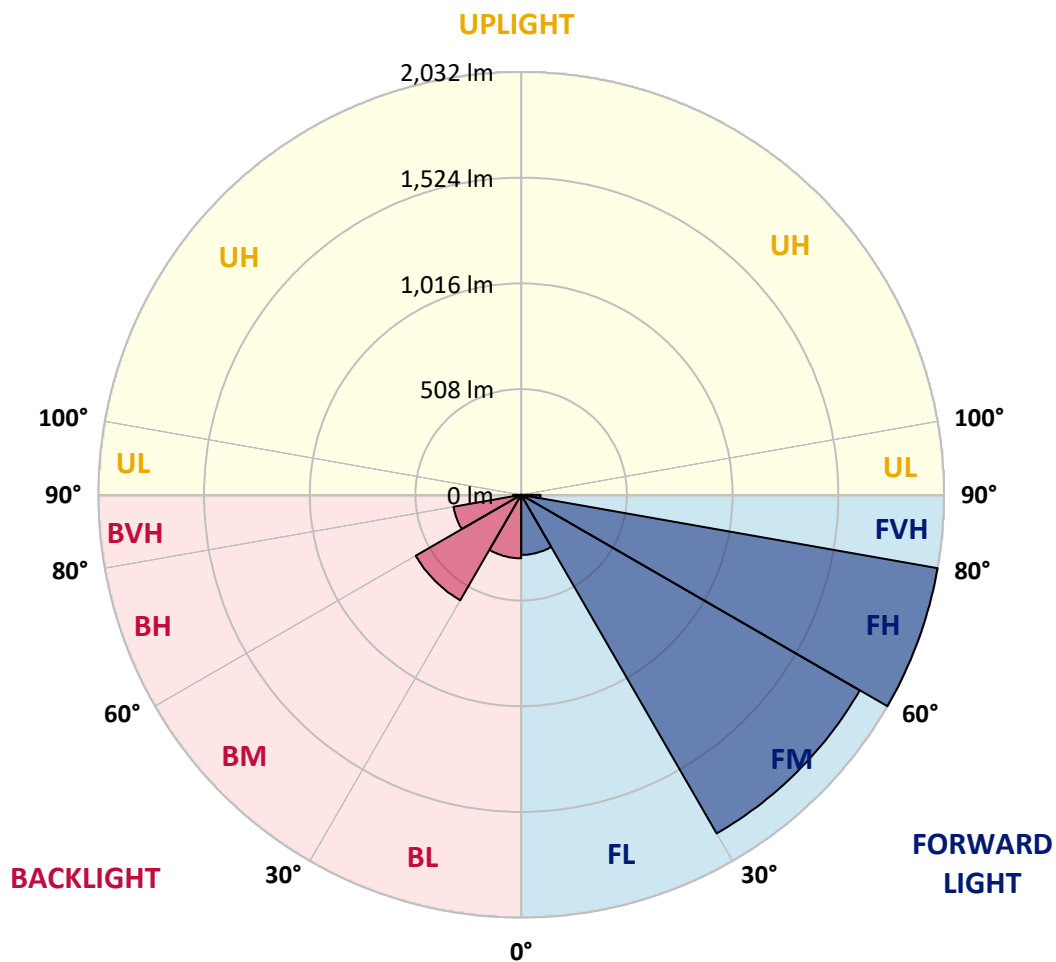
CATALOG NUMBER: ARCH-M-AF48-40-D-U-T3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	288.8	5.2			
FM (30°-60°)	1879.0	33.8			
FH (60°-80°)	2031.9	36.6			G2/5000
FVH (80°-90°)	92.7	1.7			G1/100
BL (0°-30°)	305.2	5.5	B1/500		
BM (30°-60°)	585.1	10.5	B1/1000		
BH (60°-80°)	330.2	5.9	B1/500		G1/500
BVH (80°-90°)	38.6	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Short





REPORT NUMBER: P231166

CATALOG NUMBER: ARCH-M-AF48-40-D-U-T3

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1
2.5°	596.7	594.6	594.6	597.7	598.7	601.8	601.8	602.8	605.9	610.9	617.0
5°	578.4	577.4	578.4	582.5	584.5	590.7	592.6	593.6	599.8	607.9	617.0
7.5°	560.1	559.1	561.1	567.2	573.4	582.5	587.6	588.6	597.7	608.9	621.1
10°	554.0	553.0	556.1	561.1	567.2	577.4	585.5	586.6	599.8	613.0	630.2
12.5°	562.1	561.1	564.2	569.3	575.4	582.5	591.7	592.6	609.9	627.2	645.5
15°	582.5	582.5	583.5	586.6	592.6	598.7	606.9	607.9	626.1	646.5	664.8
17.5°	614.0	611.9	611.9	610.9	615.0	618.1	628.2	629.2	648.6	666.9	685.2
20°	652.6	651.6	647.5	642.4	641.4	643.4	653.7	654.7	673.9	689.3	706.4
22.5°	699.4	700.4	691.2	680.1	674.9	678.0	687.2	688.2	702.5	715.7	730.9
25°	761.4	758.3	745.1	728.9	718.7	718.7	727.8	727.8	741.0	749.2	759.3
27.5°	820.3	814.3	802.1	778.7	762.4	765.5	774.6	774.6	786.9	789.8	794.9
30°	884.3	878.3	863.1	833.6	812.2	810.2	821.3	820.3	836.6	835.5	831.6
32.5°	962.7	959.6	934.2	896.6	868.1	861.0	871.1	872.2	882.4	879.3	866.1
35°	1072.5	1071.4	1048.0	981.9	944.4	931.2	937.2	937.2	944.4	936.2	913.9
37.5°	1210.7	1212.7	1192.5	1094.9	1042.0	1019.6	1020.6	1019.6	1021.6	1012.5	989.1
40°	1349.0	1354.1	1353.1	1235.1	1168.0	1129.3	1115.1	1113.1	1118.2	1114.1	1091.8
42.5°	1530.9	1543.1	1514.7	1407.9	1332.7	1267.6	1229.0	1224.0	1235.1	1240.2	1218.8
45°	1720.0	1715.9	1671.2	1594.0	1525.8	1442.5	1369.3	1361.1	1369.3	1384.6	1362.2
47.5°	1818.6	1815.5	1804.4	1765.7	1755.6	1660.0	1549.3	1542.1	1526.9	1548.2	1521.7
50°	1981.3	1984.3	1938.6	1934.5	1977.2	1924.3	1752.5	1736.3	1708.8	1726.1	1703.7
52.5°	2099.2	2085.9	2057.5	2093.1	2226.2	2197.8	1943.6	1936.5	1911.1	1907.0	1896.9
55°	2147.0	2147.0	2152.0	2234.3	2424.5	2386.9	2151.0	2158.1	2123.5	2095.1	2108.3
57.5°	2161.2	2167.2	2211.0	2347.2	2657.2	2534.3	2379.7	2389.9	2340.1	2283.1	2324.9
60°	2091.0	2109.3	2214.1	2411.2	2788.4	2690.8	2620.6	2623.7	2551.5	2468.2	2541.3
62.5°	1911.1	1933.5	2120.5	2437.7	2767.0	2851.4	2848.3	2855.5	2756.9	2653.1	2744.7
65°	1690.5	1712.8	1912.1	2363.4	2750.7	2966.3	3056.8	3076.0	2949.0	2809.7	2871.7
67.5°	1366.3	1395.7	1584.8	2113.4	2671.4	3060.8	3252.0	3272.2	3097.4	2891.1	2860.6
70°	990.1	1004.3	1162.9	1606.1	2348.2	3009.0	3406.4	3405.4	3146.2	2884.9	2708.1
72.5°	476.8	487.9	625.1	997.3	1679.3	2553.6	3294.6	3314.0	3079.1	2796.5	2359.4
75°	196.2	207.4	253.1	420.8	881.4	1687.5	2792.5	2838.2	2796.5	2509.8	1846.0
77.5°	121.9	126.0	148.4	217.6	402.5	787.8	1954.9	2016.8	2216.0	2010.7	1218.8
80°	91.5	94.5	110.8	152.5	254.1	290.7	970.8	1049.0	1342.8	1153.8	552.0
82.5°	76.2	77.2	88.5	110.8	172.8	166.7	311.1	346.7	626.1	440.2	190.1
85°	71.2	73.1	79.3	79.3	109.8	104.8	129.1	135.2	182.0	150.5	66.1
87.5°	36.6	34.6	70.2	62.0	56.9	50.8	54.9	58.9	68.1	72.2	29.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P231166

CATALOG NUMBER: ARCH-M-AF48-40-D-U-T3

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1	621.1
2.5°	619.1	622.2	627.2	632.3	638.4	645.5	649.6	654.7	658.7	656.7	655.7
5°	622.2	627.2	638.4	648.6	660.7	674.9	684.1	694.3	702.5	704.5	701.4
7.5°	627.2	636.4	651.6	669.9	686.2	704.5	718.7	732.9	743.1	745.1	745.1
10°	639.4	649.6	669.9	694.3	713.6	732.9	749.2	760.4	769.6	773.6	773.6
12.5°	656.7	668.9	693.3	722.7	744.1	762.4	771.5	776.6	780.7	784.8	785.8
15°	677.0	690.2	719.7	751.3	773.6	782.8	782.8	781.7	781.7	783.8	785.8
17.5°	697.3	711.6	742.0	775.6	789.8	784.8	777.6	774.6	772.5	771.5	774.6
20°	718.7	732.9	763.4	794.9	790.8	769.6	759.3	752.3	746.1	743.1	747.2
22.5°	742.0	755.2	786.9	808.1	777.6	745.1	725.8	714.6	704.5	698.4	702.5
25°	769.6	782.8	813.2	812.2	754.3	708.5	678.0	659.7	648.6	642.4	642.4
27.5°	802.1	813.2	842.7	802.1	721.8	659.7	615.0	597.7	594.6	589.6	589.6
30°	835.5	844.8	870.1	778.7	677.0	595.7	546.9	538.8	539.8	534.7	535.7
32.5°	870.1	879.3	886.4	744.1	619.1	523.5	491.0	484.9	483.9	479.8	475.8
35°	918.9	932.2	888.4	697.3	548.9	463.5	440.2	434.0	428.0	413.7	413.7
37.5°	993.2	1007.4	883.4	639.4	476.8	416.8	395.5	387.3	377.2	362.9	357.8
40°	1094.9	1094.9	872.2	574.4	418.8	379.2	358.9	348.7	337.5	323.3	320.2
42.5°	1214.8	1186.3	854.9	508.3	376.1	353.7	335.4	324.3	311.1	294.8	292.8
45°	1355.0	1277.8	830.5	449.3	344.6	338.5	327.3	308.0	285.6	268.3	265.4
47.5°	1491.3	1360.1	807.1	407.6	318.1	332.5	323.3	290.7	260.2	235.8	232.8
50°	1640.7	1433.4	779.7	373.1	297.9	328.4	318.1	265.4	231.8	214.5	212.5
52.5°	1790.2	1507.5	750.2	336.4	280.6	320.2	306.0	247.0	230.8	207.4	204.3
55°	1947.7	1594.0	715.7	295.8	260.2	303.9	289.7	246.0	237.8	207.4	200.3
57.5°	2101.1	1689.5	659.7	256.1	237.8	279.6	283.7	239.9	222.6	205.3	197.2
60°	2271.0	1791.2	567.2	222.6	218.6	259.2	275.5	226.7	205.3	199.3	195.2
62.5°	2407.2	1882.6	443.2	199.3	202.3	243.0	265.4	218.6	198.2	193.1	192.1
65°	2466.1	1884.7	318.1	178.9	186.1	227.7	255.1	211.4	192.1	190.1	189.0
67.5°	2404.1	1781.0	223.6	159.6	168.8	213.5	241.9	204.3	186.1	187.0	185.1
70°	2203.8	1562.5	163.7	141.3	152.5	198.2	227.7	195.2	178.9	181.0	177.9
72.5°	1844.0	1217.8	131.1	126.0	139.2	182.0	213.5	185.1	167.8	168.8	162.6
75°	1362.2	807.1	109.8	112.8	124.0	166.7	195.2	171.8	155.5	151.5	147.4
77.5°	810.2	414.7	90.4	98.6	110.8	148.4	174.8	155.5	142.3	135.2	132.2
80°	334.4	167.8	74.2	83.4	96.6	132.2	154.5	136.3	127.1	120.0	115.9
82.5°	133.2	82.3	58.9	68.1	81.3	114.9	135.2	120.0	110.8	105.7	94.5
85°	50.8	40.6	39.7	47.8	61.0	88.5	111.8	100.7	93.5	80.3	77.2
87.5°	20.4	18.3	18.3	23.4	34.6	56.0	80.3	70.2	73.1	57.9	58.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)